FIELD TRIPS OF THE CLUB

Trip of January 25, 1941, to Osborn Botanical Laboratory

Eight members visited the Osborn Botanical Laboratory at Yale University. Dr. Alexander W. Evans was our host. His comprehensive herbarium of Cladoniae was our objective. The abundance of material, the complete library, the kindness and competence of Dr. Evans left nothing to be desired. Be it the study of a rare or difficult species, the precise locating of a locality from which collections had been made, or the checking of identification and synonomy on early Pennsylvania collections, no request was too trivial or too great. This indeed was an ideal trip for the serious student.

John A. Small

March 14–16 to the Mohonk Sugar Bush

Eighteen people braved typically March weather and enjoyed a variety of activities. Due to continued cool weather the trees had just been tapped but there was a good run of sap on Saturday. We were able to see the whole process of making maple syrup except the final boiling. The Mohonk sugar bush is purposely operated by old-fashioned methods with sumach spiles and a large open kettle for boiling. A detailed description was given in Torreya, May-June, 1939.

Skating, snowshoeing, coasting and skiing were all enjoyed, but to many the supper at the Log Cabin was the outstanding event. The meal was cooked in the great fireplace and eaten by candlelight. The leader's much talked of supper surprise turned out to be a fresh strawberry shortcake!

Daniel Smiley, Jr.

Trip of March 30, 1941

Fourteen members and friends under the leadership of Dr. John W. Shive of Rutgers University worked on the section of the Appalachian Trail located between Millbrook Road and Flatbrooksville Road in Warren-Sussex Counties, New Jersey. Brush and down trees were removed and the blazes were repainted. On the return hike a list of plants, excluding lichens, was made. Eighty

species were recorded at this season of the year. The list is filed with the field committee and it is hoped that additions may be made as others visit the trail in this area at different seasons. We have previously recorded some thirty lichen species, including forms of Cladonia species.

John A. Small

Trip of April 17 to Boyce Thompson Institute for Plant Research

Approximately thirty people arrived at the Institute at 2 o'clock. We spent from 2 to 4 going through the building and the greenhouses. We discussed a few projects in some detail and talked in general about the work at the Institute. While visiting my laboratory the group was given a demonstration of formative effects of B-naphthoxyacetic acid and samples of seedless tomatoes which were induced by this compound. In another laboratory they saw potato chips and learned that variation in color of the potato chips is usually associated with variation in content of reducing sugars. Members of the party came from Pennsylvania, New Jersey, and New York. The University of Pennsylvania was represented by Dr. E. T. Wherry and several members of the graduate school. The New Jersey College for Women was represented by Dr. Small and several others from Rutgers University. Dr. Trelease came with a group from Columbia University. The field committee was represented by Dr. James Murphy and several other members. Though the names were not recorded, the rest of the group was made up of members and associate members of the Torrey Botanical Club.

P. W. Zimmerman

Trip of April 27 to Bushkill Falls, Pa.

More than thirty members of the Torrey Botanical Club gathered at Bushkill Falls on Sunday morning, April 27, to study the flora, especially the bryophytes, and to make comparisons with the data that have been assembled in this locality during the past several years (Torreya **40**: 175–177). Mr. Nearing contributed much by discussing the lichens, some of which are not generally found, and Dr. Higinbotham identified many of the more puzzling mosses. Most of the genera and species of the bryophytes examined had been collected here in previous years, though we had not noticed

Radula obconica and *Riccardia sinuata* before; both are rather uncommon. *Lophocolea heterophylla* showed abundant sporophytes, while *Ptilidium pulcherrimum* had open capsules fuzzy with brown spores and elaters. In *Conocephalum conicum* the female receptacles extended up several inches, while *Marchantia polymorpha,* associated with *Riccardia* and *Sphagnum,* showed very numerous male receptacles and very few of their feminine counterparts. In *Reboulia hemispherica,* which grows abundantly close to the Falls, the receptacles were just developing. The bases of the trees in a swamp north of the Falls are especially favorable for the growth of *Thelia hirtella,* and this moss was dotted with sporophytes showing the immaculate white peristomes. *Dicranum fulvum* (in "fruit"), *D. scoparium,* and *D. undulatum* were all growing close together.

The warm days of recent weeks were reflected in the flowering of some of the seed plants, so that the Shadbush was well along; the Gold Thread, *Coptis trifolia,* added a touch of color to the marshes with its greenish white flowers; while the Fringed Milkwort, *Polygala paucifolia,* showed buds that were nearly open and in a few instances flowers that had actually expanded. It is of course difficult to make comparisons in phenology even from written records, but most of us felt that these flowering plants were distinctly farther along than they were at the time of the trip of last year, which was held on April 28. Apparently we are getting back to the warm, dry part of our climatic cycle.

Edwin B. Matzke

Trip of May 4, 1941, to Chester, N. Y.

This trip was originally scheduled to visit the colony of *Cetraria islandica* on Hogencamp Mountain in Palisades Interstate Park near Arden, N. Y. Due to the fire hazard, however, the Governor had declared all state parks closed. A group of twelve members and friends turned up at the Arden station so the group went by automobile to a region near Chester, Orange County, N. Y., where Mr. G. G. Nearing had previously collected lichens.

Here, on Goat Hill, an outcropping of calcareous shale yielded a number of crustose lichens which were collected for further study. Species such as *Acarospora fuscata, Rhizocarpon petraeum* var. *confervoides,* and *Urceolaria scruposa* were common. A yellow,

powdery, sterile thallus on the underside of almost every stone in the base of an old wall was puzzling until apothecia were discovered by Mr. James McGrath. Mr. Nearing later determined this crustose lichen to be *Lecidea lucida*. A number of Cladonias were collected on this hillside, including *C. cristatella* ffs. *vestita* and *abbreviata, C. mitrula* f. *imbricatula, C. chlorophaea* f. *simplex, C. delicata* f. *quercina, C. pleurota, C. furcata, C. Floerkeana, C. rangiferina* and *C. coniocraea.*

After lunch, the party moved on to climb Sugarloaf Mountain, a crystalline rock hill. On the rocks *Cladonia pyxidata, C. uncialis, Stereocaulon paschale* and *Lecanora rubina* were collected. Along the trail up, a tree yielded an abundance of *Physcia tribacia* in fruit, *P. endochrysea,* and *P. stellaris.* More of the unusual *Lecidea lucida* was found on the walls of the old roadway on the way up. It was fruiting in greater abundance than on Goat Hill but was difficult to collect as it chose to grow in the darker crannies in the bottom of the wall. The best find of the day was made by Dr. M. L. Massey. On the way up the southwestern slope of the hill she found a colony of the "Iceland Moss," *Cetraria islandica.* When further search of the slope was made, the colony was found to be of large size and the plants luxuriant, with broad lobes. It is not likely to be much disturbed as it is off the regular trail by which hikers ascend the southern face of the hill. This find adds a new station to the scanty records of this interesting lichen in the range of the Torrey Botanical Club.

J. W. Thomson, Jr.

Trip of May 16–18 to Branchville, N. J.

The Sixteenth Annual Nature Conference of the Club at Branchville, N. J., was held May 16–18, 1941. Mr. Wallace M. Husk, manager of the hotel, "The Pines," made the arrangements and was host. At least one hundred persons were present. More than ninety registered at the hotel and others stopped nearby or came for only one or two of the walks.

The leaders were Dr. J. M. Johnson in charge of the bird walks, William Hassler who led trips for the study of reptiles and amphibians, Dr. John W. Thomson in charge of lichens and liverworts, W. H. Dole who conducted trips for ferns and the writer who led hikes for the study of trees, shrubs, and flowering plants. Insects

and other objects of nature came in for attention when interesting species were found.

On Friday evening, May 16, the writer gave an illustrated talk on "Snapshots About the Pines," showing pictures of animal and plant life that he had taken on previous nature conferences. On the evening of May 17, Dr. J. M. Johnson lectured on "Mammals of the Rocky Mountain Region," illustrated with slides made from his own photographs. This was followed by movie reels of animal life made and shown by Mr. Hassler.

About eighty persons took part in the various bird hikes and eighty-nine species were observed. Two of these were new to the region, a White-winged Scoter and a Glossy Ibis. The latter bird, far out of its range, was observed by several good bird students at close range and Dr. Johnson believes there is little doubt as to the correctness of the identification. All observations were made within ten miles of Branchville. A pair of Pileated Woodpeckers were observed at their nest, and a pair of Great Blue Herons were constructing a nest and a pair of Florida Gallinules were observed at close range.

Mr. Hassler's walks were much enjoyed, especially by teachers of biology. He put up an exhibit of live animals, chiefly reptiles and amphibians that were collected on the trips around Branchville. Dr. Thomson also assembled an interesting exhibit of lichens collected by his groups. These labeled specimens were studied at odd moments.

An aggregate of sixty or more members and guests took part in the three fern hikes led by Mr. Dole. Thirty-two species of ferns were observed. Among the ferns found, the Smooth Cliff-brake, *Pellea glabella,* and the Narrow-leaf Spleenwort, *Diplazium pycnocarpon,* are comparatively rare in New Jersey.

While this is marked the "Sixteenth" Annual Nature Conference held at Branchville, N. J., it is really the seventeenth. The first was held May 14–16, 1925, with Dr. H. A. Gleason of the New York Botanical Gardens and the writer as leaders. About twenty-five persons were in attendance at the first meeting. There have been held sixteen annual nature conferences since that time. Certain changes have taken place in the plant life since the first meeting. Some species have increased in numbers, others have decreased and a few have apparently disappeared. Occasionally a

new plant appears. The colony of *Marsilea quadrifolia* which was observed last year for the first time has greatly increased. The lake has receded due to dry weather, now the plants cover the mud and wet sand in that area. This year we noticed a colony of *Callitriche,* apparently *C. heterophylla,* floating on the surface of a pool by the front lake. A fine plant of Ginseng, *Panax quinquefolium,* grew near the wood-road back of the hotel. It has disappeared. In the last three or four years we have seen no Long-bracted Orchids, *Coeloglossum bracteatum.* Formerly several grew near the hotel.

Oliver Perry Medsger

Trip of May 24 to Tricker's Greeenhouses, Saddle River, N. J.

Ten members and guests of the Club in addition to the leader visited the Tricker gardens at Saddle River during the afternoon. The group collected both in the numerous pools under glass and those out of doors. Some forty-five genera of algae, some represented by several species, were observed macroscopically and microscopically. Among the forms collected *Volvox weismannia* Powers and *Ploeodorina californica* Shaw were present in great abundance and in all phases of sexual and asexual reproduction. The most thrilling find of the afternoon was an abundant growth of *Sphaeroplea annulina* (Roth) Ag. The presence of Professor T. E. Hazen contributed materially to the success of the collecting trip.

Harold C. Bold

Trip of June 7 to Local Flora Section, Brooklyn Botanic Garden

Five members attended the trip to the "Local Flora Area" of the Brooklyn Botanic Garden to see native plants, found within a hundred mile radius of New York City, growing in cultivation. In the Brooklyn Botanic Garden the plants are arranged in ecological groups. Thus in one afternoon we saw plants typical of the Pine Barrens, Serpentine areas, Long Island ponds, northern woodlands, meadows, and bogs.

Especially noteworthy this afternoon were *Xerophyllum asphodeloides* with its showy racemes of cream colored flowers; *Chamaelirium luteum,* Blazing Star; and *Tephrosia virginiana,* Goat's

Rue. Other interesting plants noted were *Hydrophyllum virginianum,* Waterleaf; *Sarracenia purpurea,* Pitcher Plant; *Gaylussacia dumosa,* Dwarf Huckleberry; *Penstemon Digitalis; Anemone canadensis,* Meadow Anemone; *Kalmia latifolia;* and *Kalmia angustifolia.*

We also paid a short visit to the Rose Garden which was at its best at this time.

ELIZABETH ASHWELL

TRIP OF JUNE 15, 1941, TO FORKED RIVER, N. J.

The June 15 trip of the Torrey Botanical Club to Forked River, N. J., took a group of hardened naturalists into one of the best sections of the Pine Barrens for the study of bog and barrens plants. The group met at the railroad station and followed the tracks south, stopping at the three bogs that extend along the branches of Forked River, and at several spots in the pine woods. The lake on the north branch has been drained for two years, and on the muddy bottom a striking growth of *Drosera longifolia* L. (Long-leaved Sundew) has developed. In the middle branch bog the other two common sundews, *Drosera rotundifolia* L. and *D. filiformis* Raf. were found. The young leaves and peduncles of *D. filiformis* Raf. showed nicely that interesting "fern" character of being rolled up in the bud like the "fiddle-heads" of our common ferns. Among the interesting bog flowers observed were *Narthecium americanum* Ker. (Bog Asphodel), *Pogonia ophioglossoides* (L.) Ker. (Rose Pogonia), *Arethusa bulbosa* L. (Dragon's Mouth), *Calopogon* (*Cathea*) *pulchellus* (Sw.) R. Br. (Grass Pink)—including an albino specimen, *Polygala lutea* L. (Orange Milkwort), *Kalmia angustifolia* L. (Sheep Laurel), *Magnolia virginiana* L. (Sweet Bay), and *Utricularia fibrosa* Walt. (Bladderwort). The pitcher plants (*Sarracenia purpurea* L.) were past their prime, but several very fine mats of plants were noted. The abundance of *Schizaea pusilla* Pursh in the middle branch bog seems to be as great as ever. On many hummocks one could find five to ten specimens, most of which had a few unrolling sporophylls. Last year's fertile fronds were still present but rather brittle. As a suggestion to botanists seeking this inconspicuous fern, it is usually encountered on the hummocks around the bases of White Cedar trees and around old stumps, at about the level where the *Sphagnum* gives way to lichens such as *Cladonia*

squamosa (Scop.) Hoffm., *C. calycantha* Del., *C. cristatella, C. pyxidata* (L.) Hoffm., *C. sylvatica* (L.) Hoffm., and *C. tenuis* (Fl.) Harm. Among the interesting lichens encountered in the bog was *Cladonia impexa*. Harm. This seems to be the only known station for this lichen in New Jersey. Growing on an island in the south branch we found a quite large colony of *Smilax laurifolia* L.

Among the barrens plants, the oaks are especially interesting and numerous. Those identified were *Quercus alba* L. (White Oak), *Q. stellata* Wang (Post O.), *Q. prinoides* Willd. (Scrub Chestnut O.), *Q. prinoides* var. *rufescens* Rehder, *Q. primoides* form with very small leaves, *Q. montana* Willd. (Chestnut O.), *Q. borealis* Michx. f. var. *maxima Ashe* (Red O.), *Q. coccinea* Muench. (Scarlet O.), *Q. velutina* Lam. (Black O.), *Q. falcata* Michx. (*Q. rubra* L.) (Spanish O.), *Q. ilicifolia* Wang. (Black Scrub O.), *Q. marilandica* Muench. (Black Jack O.), and *Q. phellos* L. (Willow O.). As is usual where several species of oaks occur together, a few hybrids were encountered. Of these, the cross between *Q. ilicifolia* Wang. and *Q. marilandica* Muench. (× *Q. Brittoni* W. T. Davis) was common. Single specimens only of the following were seen: *Q. ilicifolia* Wang. × *Q. falcata* Michx., *Q. alba* L. × *Q. prinoides* Willd. and *Q. stellata* Wang. × *Q. prinoides* Willd.

In all a total of some 228 species of plants were recognized.

Joseph J. Copeland